

Application Serial No. 10/811,768
Reply to office action of January 18, 2007

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PATENT
Docket: CU-3664

REMARKS/ARGUMENTS

Reconsideration is respectfully requested.

Claims 10-13 are currently pending before the present response (claims 1-9 and 14-23 stand withdrawn in response to the earlier restriction requirements). No claim is amended herein as none is deemed necessary for the reasons below. No new matter has been added.

In the office action (page 2), claims 10-13 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,586,827 (Takeuchi). The "et al." suffix is omitted in a reference name.

The applicants respectfully disagree as Takeuchi is quite different from the presently claimed invention.

Takeuchi col. 3, line 16 to col. 4, line 14 discloses as follows:

The through-hole 2 is formed in the core substrate 1 (see FIG. 2; col. 3, lines 21-22). The **chip capacitor 4** is provided in the through-hole 2, and the chip capacitor 4 has projecting **electrode 5** (see FIG. 3; col. 3, lines 26-31). The resin 6 is buried in the through-hole 2 and is flattened to expose the electrode 5 (see FIGS. 4-6). Then, the wiring 90 for connection to the electrode 5 is formed (see FIG. 8), and the insulating films 14, 15 are formed on the wiring 90. Further, Takeuchi teaches that via holes are formed in the insulating films 14, 15. Takeuchi's terminal electrode 13 is connected to the electrode 5 through the via hole and the wiring 90 (see FIG. 9). Takeuchi's **semiconductor element 18** is connected to the terminal electrode 13 through the electrode 20, solder ball 17. In this way, Takeuchi's semiconductor element 18 is connected to the electrode 5 and the chip capacitor 4 (see FIGS. 1 and 10).

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In contradistinction, according to embodiment(s) as shown in FIGS. 2J, 3I, 4I, 5I, 6-7 of the present application, the opening 29 (compare with Takeuchi's through hole 2) is formed in the base 26, but not in the substrate layer 25 (compare with Takeuchi's core substrate 1). Unlike the presently claimed invention, Takeuchi's opening 2 is formed in the core substrate 1.

In addition, in the present invention, the electronic component 27 (compare with Takeuchi's chip capacitor 4) is buried in the substrate layer 25, but not arranged in the opening 29.

Further, Takeuchi's insulating films 14, 15 (collectively 16) do not correspond to the claim base such as the base 26 according to an embodiment of the present invention. Specifically, the opening 29 is formed in the base 26 according to an embodiment of the present invention, but Takeuchi discloses that no opening is formed in the insulating films 14, 15, although the through hole 2 is formed in the core substrate 1.

1. In addition, the base 26 according to an embodiment of the present invention is not insulating but formed from metals (specification page 12, lines 14 to 20).

In the presently claimed invention, the electronic component 27 is connected to the semiconductor element 22 through the bumps 33, 24. However, in Takeuchi, the semiconductor element 18 is connected to the chip capacitor 4 through the electrode 20, the solder ball 17, the terminal electrode 13, the electrode 5.

In other words, the connection distance is greatly short in the presently claimed invention; thus, the inductance can be greatly reduced (specification page 13, lines 21-29).

The applicants respectfully submit that comparison between the presently

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claimed invention and the cited Takeuchi reference outlined in the office action is not appropriate. Thus, for the reasons as set forth above, the applicants respectfully submit that claims 10-13 pending in the present application overcomes the current rejection over Takeuchi, and an indication of allowable subject matter is respectfully requested.

Accordingly, the applicants respectfully request reconsideration and withdrawal of the outstanding rejections and earnestly solicit issuance of a Notice of Allowance. When issuance of a Notice of Allowance is proper in the next action, the examiner is authorized to cancel the withdrawn claims, for which the applicant reserves the right to file a divisional application. This amendment is considered to be responsive to all points raised in the office action. Should the examiner have any remaining questions or concerns, the examiner is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

Respectfully submitted,



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